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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/450,890	11/29/1999	DAVID N. MAKINSON	SCH-52	8294
22827	7590	04/19/2004	EXAMINER	
DORITY & MANNING, P.A. POST OFFICE BOX 1449 GREENVILLE, SC 29602-1449			NGUYEN, VINH P	
			ART UNIT	PAPER NUMBER
			2829	

DATE MAILED: 04/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application N . 09/450,890	Applicant(s) <b>MAKINSON ET AL.</b>	
	Examiner VINH P NGUYEN	Art Unit 2829	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 February 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-79 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-15, 25-33 and 42-64 is/are allowed.
- 6) ☒ Claim(s) 16-24, 34-41 and 65-68 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 2829

1. Claims 16-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 16, it is unclear whether "resilient connectors" are positively claimed.

The dependent claims not specifically address share the same indefiniteness as they depend from rejected base claims.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 65 is rejected under 35 U.S.C. 102(b) as being anticipated by Loy et al (Pat # 5,966,010) .

As to claim 65, Loy et al disclose a meter as shown in figure 1 having a metrology board (20), an encloseable casing (12) having a cover (26) , a baseplate (12) with spades (not shown) for electrical contact of the meter with main power and an antenna (22) connected to the metrology board (20). It is noted that the antenna is affixed substantially adjacent to and directly on selected of the first and second opposing surfaces ( half circumference) of the metrology board.

4. Claims 34-41,66-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Germer et al (pat #5,001,420) in view of Loy et al (Pat # 5,966,010) and Johnson (Pat #4,298,839) and Edward et al (Pat # 4,792,677)

As to claims 34,38-39,66-67, Germer et al disclose a utility meter as shown in figures 1 and 3 having an enclosure with a cover (156) and a base plate (14), a metrology board (110) electrically connected to the spades (16,18,22), a circuit board (58) electrically connected to the metrology board (110) for providing additional functionality beyond the functionality provided by the metrology board selected customized feature for the meter beyond the metrology board electricity consumption signal (see column 2, lines 31-41 and column 7, lines 59-68- column 8, lines 1-25) and a fixed connector (96) for connecting both the metrology board (110) and the circuit board (58). It is noted that the board of Germer et al does not have an antenna. Loy et al disclose a meter as shown in Figure 1 having a metrology board (20), an encloseable casing (12) having a cover (26) and a baseplate (12) and an antenna (22) connected to the metrology board (20). It would have been obvious for one of ordinary skill in the art to provide an antenna affixed substantially adjacent to the metrology board of Germer et al so that the measured signal is transmitted to a remote location. It is noted that the antenna (22) of Loy et al is affixed substantially adjacent to selected of the first and second surface of the metrology board (20) of

Loy et al.

As to claim 35, it is well known that Germer et al device inherently has a power supply for providing power to those boards so that they would have power for performing their functions.

As to claims 36 and 41, Germer et al teach that the metrology board connected to the circuit board through a fixed connector (96).

As to claims 37 and 40, Johnson disclose a meter as shown in figures 1 and 2 having a light source ( 86,87), a light pipe (1 15,1 17) for transmitting the light from the light source to the outside, an encloseable casing (12) having a cover and a baseplate. It would have been obvious for one of ordinary skill in the art to provide light source and light pipe on the chassis to the device of Germer et al (pat # 4,804,957) in view of Loy et al so that optical readout is obtained.

As to claim 68, Edward et al also teach that it would have been well known in the meter to have a display (20) supported within a cover and at least a transparent outer cover (18) for protecting the enclosed component.

5. Claims 1-15,25-33,42-64 and 69-79 are allowable since the prior art does not disclose an electricity meter using resilient connectors for connecting the spades to the metrology board

6. Applicant's arguments filed on 02/12/04 have been fully considered but they are not persuasive.

Applicants argue that the antenna of Loy et al is not affixed substantially adjacent to selected of the first and second opposing surface of the metrology board for transmitting a radio signal directly therefrom through the cover.

Examiner disagrees with Applicants about this issue. Each of first and second opposing surfaces of the metrology board are considered as a half circumference of the metrology board and each of the half circumference of the board is opposite to each other. Therefore, Examiner believes that the prior art references still meet the limitations of claims 34-36,38-41 and 65-68.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bloss, Jr. et al (Pat # 5,877,703) disclose a utility meter transmitter assembly having an **antenna printed circuit board (50).**

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37


Art Unit: 2829

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. The proposed drawing correction filed on 08/26/02 has been approved by Examiner.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to VINH P NGUYEN whose telephone number is (521)272-1964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
VINH P. NGUYEN  
PRIMARY EXAMINER  
ART UNIT 2829  
04/12/04